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piece 1, NC\_000913, ysgA\_udp-, config: linear, direction: -, begin: 4014483, end: 4014173

The diagram illustrates the secondary structure of the *ysgA* gene. The gene is transcribed from left to right, with the 5' end at the top and the 3' end at the bottom. The mature mRNA sequence is shown below the strand, with amino acid translations above it. Several processing sites are indicated by red dots: one after the first hairpin (aa 1), one before the second hairpin (aa 11), and one before the third hairpin (aa 21). A dashed line indicates a cleavage site between the first and second hairpins. The mature mRNA starts at aa 11 and ends at aa 33. The 5' UTR is labeled 'ysgA\_5p'. The 3' UTR is labeled 'ysgA\_3p'. The mature mRNA is labeled 'ysgA\_m'. The gene is flanked by two tRNA genes: *tRNA<sub>lys</sub>* (aa 34-40) and *tRNA<sub>asp</sub>* (aa 41-47).

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{-- sd-ir 4014364 Gap 4.6 bits  
{-- sd-ir 4014364 ysgA_udp- total 5.5 bits
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{----- p35-(22)-p10 4014237 Gap  
----- p35-p10 4014237 total 4.2

... -----] p35-(22)-p10 4014237 Gap 2.3 bits

... -----| p35-p10\_4014237 total 4.2 bits

p10 5.6 bit

... -----} p35-(21)-p10 4014231 Gap 3.3 bits

-----| p35-p10 4014231 total 6.1 bits

{-----} sd-(9)-ir 4014192 Gap 2.3 bit

|-----| sd-ir 4014192 ysgA\_udp- total 13.2 bits

its { p35-(21)-p10 4014195 Gap 3.3 bits  
| p35-p10 4014195 total 5.4 bits